

GLOSSARY

Controlled area. The defined area in which the exposure of persons to radiation is supervised by a Radiation Protection Officer. Controlled areas require control of access, occupancy, and working conditions.

Half-value layer (HVL). Thickness of a specified substance which, when introduced into the path of a given beam of radiation, reduces the exposure rate by one-half.

Kilovolt (kV). A unit of electrical potential difference equal to 1000 volts.

Kilovolt peak (kVp). The crest value in kilovolts of the potential difference of a pulsating potential generator. When only one-half of the wave is used, the value refers to the useful half of the cycle.

Lead equivalence. The attenuation of a material expressed in an equivalent thickness of lead.

Million electron volts (MeV). Energy equal to that acquired by a particle with one electronic charge being accelerated through a potential difference of 1 million volts (1MV).

Noncontrolled area. Any space not meeting the definition of controlled area.

Occupiable area. Any room or other space, indoors or outdoors, that is likely to be occupied during irradiation by any person, either regularly or periodically during the course of his/her work, habitation, or recreation.

Primary radiation. Radiation arising directly from the target of an x-ray tube or from a radioactive source.

Protective barrier. A barrier of radiation-attenuating material used to give the required protection from radiation exposure.

Qualified expert. With reference to radiation protection, a person having the knowledge and training to advise regarding radiation protection needs, to measure ionizing radiation, and to evaluate safety techniques; a person having relevant certification from the American Board of Radiology or American Board of Health Physics, or equivalent qualifications. With reference to shielding design, a person having particular knowledge and training in the field of medical x-ray and gamma-ray shielding.

Radiation (ionizing). Any electromagnetic or particulate radiation capable of producing ions, directly or indirectly, by interaction with matter, specifically x-rays and gamma-rays.

Radiation protection survey. An evaluation of the radiation safety in and around an installation.

Radiation protection officer. The person directly responsible for radiation protection.

Scattered radiation. Radiation that has been deviated in direction during passage through matter.

Secondary protective barrier. Barrier sufficient to attenuate stray or secondary radiation to the required degree.

Useful beam. Radiation that passes through the window, aperture, cone, or other collimating device of the source housing. Sometimes called "primary beam."